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FILE 'CAPLUS' ENTERED AT 10:28:20 ON 10 OCT 2000

=> ACTIVATE ABZYME/Q

L1              QUE  (CATALYTIC(W)(ANTIBOD?))/AB,BI
L2              QUE  ABZYME/AB,BI
L3              QUE  ((CATALYSIS OR CATALYZES OR CATALYTIC OR CATALYZED)(5A)ANT
                IBOD?)/AB,BI
L4              QUE  L1 OR L2 OR L3

=> S L4

        175877 CATALYTIC/AB
        251361 CATALYTIC/BI
        269780 ANTIBOD?/AB
        296629 ANTIBOD?/BI
           984 (CATALYTIC(W)(ANTIBOD?))/AB,BI
            59 ABZYME/AB
           168 ABZYME/BI
         33451 CATALYSIS/AB
        114217 CATALYSIS/BI
         21064 CATALYZES/AB
         21508 CATALYZES/BI
        175877 CATALYTIC/AB
        251361 CATALYTIC/BI
        113577 CATALYZED/AB
        159439 CATALYZED/BI
        269780 ANTIBOD?/AB
        296629 ANTIBOD?/BI
          1610 ((CATALYSIS OR CATALYZES OR CATALYTIC OR CATALYZED)(5A)ANTIBOD?)
               /AB,BI
L5        1617 L1 OR L2 OR L3

=> S BORON OR B

        145846 BORON
        938104 B
L6     1018388 BORON OR B

=> S L6 AND L5

L7           88 L6 AND L5

=> S BORON

L8       145846 BORON

=> S L8 AND L5

L9             1 L8 AND L5

=> D CBIB ABS


L9   ANSWER 1 OF 1  CAPLUS  COPYRIGHT 2000 ACS
1991:610   Document No. 114:610  Therapeutic methods using   ***catalytic***
     ***antibodies***  . Powell, Michael J.; Rees, Anthony R.; Massey, Richard
     J. (IGEN Inc., USA).  PCT Int. Appl. WO 8910754 A1 19891116, 72 pp.
     DESIGNATED STATES: W:  AU, DK, FI, JP, KR, NO, US; RW: AT, BE, CH, DE, FR,
     GB, IT, LU, NL, SE.  (English).  CODEN: PIXXD2.  APPLICATION: WO
     1989-US1950 19890504.  PRIORITY: US 1988-190271 19880504.
AB   Antigens capable of eliciting antibodies which can catalyze chem.
     reactions, in particular, the cleavage or formation of a peptide linkage
     comprising a hapten or a hapten and a suitable carrier are described.
     Haptens include silicon- and   ***boron***  -contg. compds.  Antibodies
     which are catalytically active for chem. reactions and are elicited by
     such antigens are also described.  Many examples are given for the prodn.,
     screening, and isolation of monoclonal   ***catalytic***
       ***antibodies***   by using the cleavage of haptens (e.g., peptides),
     selecting an antigen comprising the peptide, and exposing cells capable of
     producing antibodies to the antigen.  Introducing prodrugs followed by
       ***catalytic***     ***antibodies***   (which cleavage the bonds in
     prodrugs) was effective in curing certain diseases.
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=> S HAPTEN

L10         7733 HAPTEN

=> S L6(4A)L10

L11          257 L6(4A)L10

=> S L11 AND L5

L12            1 L11 AND L5

=> S L12 NOT L9

L13            1 L12 NOT L9

=> D CBIB ABS


L13  ANSWER 1 OF 1  CAPLUS  COPYRIGHT 2000 ACS
1995:899297   Document No. 124:48965    ***Catalytic***     ***Antibodies***
     Generated via Homologous and Heterologous Immunization.  Tsumuraya,
     Takeshi; Suga, Hiroaki; Meguro, Shinichi; Tsunakawa, Astuko; Masamune,
     Satoru (Institute for Fundamental Research, Tochigi, Japan).  J. Am. Chem.
     Soc., 117(46), 11390-6 (English) 1995.  CODEN: JACSAT.  ISSN: 0002-7863.
GI


/ Structure 1 in file .gra /


AB   Two different immunization protocols using haptens I and II have been
     employed for the generation of   ***catalytic***     ***antibodies***
     capable of hydrolyzing ester III.  Three successive injections with one
     hapten I or II, a protocol referred to as homologous immunization,
     provided hydrolytic antibodies with a rate acceleration in the range of
     103-104.  These antibodies exhibited inhibitory activity only by the
     hapten used for the immunization.  On the other hand, two successive
     injections with hapten I followed by a boost with hapten II, a protocol
     referred to as heterologous immunization, induced   ***catalytic***
       ***antibodies***  with a rate acceleration up to 1.5 .times. 105.  The
     majority of these   ***catalytic***     ***antibodies***   possessed
     cross-reactivities to haptens I and II, and the catalytic activities were
     effectively inhibited by both haptens.  Control expts. have suggested that
       ***catalytic***   ***antibodies***   via heterologous immunization are
     derived through the unique stimulation of I-primed memory   ***B***
     -cells by the secondary   ***hapten***   II, but not through the primary
     response of virgin B-cells by II.  Two   ***catalytic***
       ***antibodies***  H2-23 and H5H2-42, generated via homologous
     immunization with II and heterologous immunization with haptens I and II,
     resp., were selected for the detailed kinetic studies.  Antibody H2-23
     showed burst kinetic behavior and the burst phase was eliminated by the
     addn. of p-nitrophenolate product.  Antibody H5H2-42 has no burst phase
     and exhibited high multiple turnover activity.  The pH-dependent kinetic
     characterization of H5H2-42 suggested that bifunctional   ***catalytic***
     residues in the   ***antibody***   combining site likely exist in the
     active site.  These results imply that the heterologous immunization
     strategy offers a potential means of introducing multiple
       ***catalytic***  residues into   ***antibody***   combining sites without
     recourse to complicated synthesis of multifunctional haptens.


=> E POWELL M/AU
=> S E3,E13,E74,E79,E80

            34 "POWELL M"/AU
           101 "POWELL M J"/AU
             9 "POWELL MICHAEL"/AU
            55 "POWELL MICHAEL F"/AU
             4 "POWELL MICHAEL FRANK"/AU
L14        203 ("POWELL M"/AU OR "POWELL M J"/AU OR "POWELL MICHAEL"/AU OR
               "POWELL MICHAEL F"/AU OR "POWELL MICHAEL FRANK"/AU)
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=> E TITMAS R/AU
=> S E3-E8

             2 "TITMAS R"/AU
             4 "TITMAS R C"/AU
             5 "TITMAS RICHARD"/AU
            15 "TITMAS RICHARD C"/AU
             1 "TITMAS RICHARD CHARLES"/AU
             3 "TITMAS RICHARD CHARLES DOMINIC"/AU
L15         30 ("TITMAS R"/AU OR "TITMAS R C"/AU OR "TITMAS RICHARD"/AU OR
               "TITMAS RICHARD C"/AU OR "TITMAS RICHARD CHARLES"/AU OR "TITMAS
               RICHARD CHARLES DOMINIC"/AU)

=> E MASSEY R/AU
=> S E3,E9,E15,E16

            18 "MASSEY R"/AU
             4 "MASSEY R J"/AU
             7 "MASSEY RICHARD"/AU
            36 "MASSEY RICHARD J"/AU
L16         65 ("MASSEY R"/AU OR "MASSEY R J"/AU OR "MASSEY RICHARD"/AU OR
               "MASSEY RICHARD J"/AU)

=> S L14,L15,L16

L17        294 (L14 OR L15 OR L16)

=> S L17 AND L5

L18         23 L17 AND L5

=> S L18 AND L6

L19          2 L18 AND L6

=> S L19 NOT L9

L20          1 L19 NOT L9

=> D CBIB ABS


L20  ANSWER 1 OF 1  CAPLUS  COPYRIGHT 2000 ACS
1990:437088   Document No. 113:37088  Peptide analogs as haptens to elicit
      ***catalytic***    ***antibodies***  .    ***Titmas, Richard C.***  ;
     Hansen, David E.; Hong, Wonpyo; Booth, Paul M.; Powell, Michael J.; Rees,
     Anthony R.;   ***Massey, Richard J.***  (IGEN Inc., USA).  PCT Int. Appl.
     WO 8910961 A1 19891116, 215 pp.  DESIGNATED STATES: W:  AU, DK, FI, JP,
     KR, NO, US; RW: AT, BE, CH, DE, FR, GB, IT, LU, NL, SE.  (English).
     CODEN: PIXXD2.  APPLICATION: WO 1989-US1951 19890504.  PRIORITY: US
     1988-190271 19880504.

GI

/ Structure 2 in file .gra /

AB   Synthetic haptens are prepd. and used to stimulate prodn. of
      ***catalytic***    ***antibodies***  . The haptenes are designed such
     that the corresponding antibodies will selectively stabilize .gtoreq.1 of
     the high energy intermediates or transition states in the cleavage or
     formation of an amide, ester, or glycosidic bond.  There are 3 classes of
     haptens: (1) those in which the hybridization of the atom corresponding to
     the carbonyl atom of the scissile bond of the amide or ester is converted
     from sp2 to sp3 hybridization; (2) those in which any of the atoms is
     replaced by a different atom, e.g. C may be replaced with P, S, Si, or
      ***B***  ; and (3) those in which the atoms are part of a mono- or
     bicyclic system.  Antibody-producing cells elicited by these haptens are
     used to prep. monoclonal  ***antibodies***  and these are screened for
      ***catalytic***  activity.  Cyclic peptide I, contg. a difluoroketone
     transition state analog, was synthesized.  The natural analog of this
     peptide includes residues 85 and 86 of the "flap" region of human renin.
     Cleavage of this bond disrupts binding of substrate to the catalytic site.
     The hapten was conjugated to keyhole limpet hemocyanin using
     glutaraldehyde and used to prep. monoclonal antibodies using std.
     procedures.  These antibodies were found to inhibit renin activity in
     human plasma.
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	L #	Hits	Search Text	DBs
1	L1	662	((CATALYSIS OR CATALYZES OR CATALYTIC OR CATALYZED) NEAR5 ANTIBOD$) OR ABZYME	USPAT
2	L3	83382	BORON	USPAT
3	L5	1484214	B	USPAT
4	L7	645	L1 AND (L3 OR L5)	USPAT
5	L9	52	L1 AND L3	USPAT
6	L11	0	L1 NEAR6 L3	USPAT
7	L13	0	L1 NEAR20 L3	USPAT
8	L15	52	L1 AND L3	USPAT